5.6 and 5.7

Types of Forces: FBD 2

Draw free body diagrams for

- Still
- Constant Velocity
- Speed Up
- Slow Down

Free Body Diagrams -

- what forces are acting on an object?
- in what direction?
- bigger arrows show more force.

General Hints:

1. Gravity always acts in the Down direction.

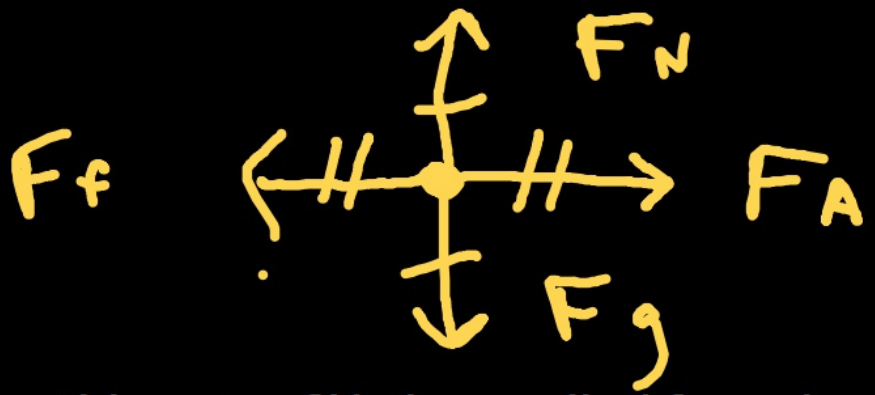
2. The normal (surface) force acts in the Up direction.

3. What happens to objects that have no normal force?

Freefall

Friction Always opposes the applied force.

4. A person pushes on a heavy desk to the right, but friction is holding it in place.

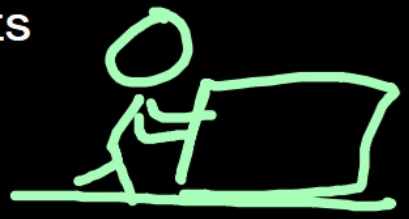


Applied = Friction

5. To push something at a CV, the applied force has to be Equal to friction.

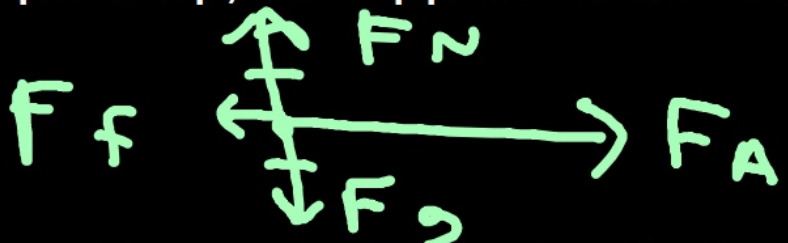
Still or C.V

Accelerating Objects

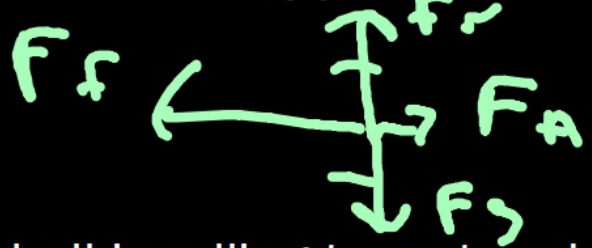


6. To make it speed up, the applied force has to be _____ than friction.

Greater



7. To slow down, the applied force has to be Less than friction.



8. A soccer ball is rolling to a stop due to friction.